DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MILLER P	OND	Lake Area (ha):	16.27
Town: G	RANTHAM	Maximum depth (m):	2.2
County: S		Mean depth (m):	1.3
River Basin: C	Connecticut	Volume (m³):	218500
Latitude: 4	3°32'25" N	Relative depth:	0.5
Longitude: 7		Shore configuration:	1.26
Elevation (ft)	: 1425	Areal water load (m/yr):	11.86
Shore length ((m): 1800	Flushing rate (yr ⁻¹):	8.80
Watershed area		P retention coeff.:	0.53
% watershed po	onded: 1.4	Lake type: natural	. w/dam

BIOLOGICAL:	27 February 1992	26 August 1991
DOM. PHYTOPLANKTON (% TOTAL) #1	NO PHYTOPLANKTON	LYNGBYA 95%
#2	SAMPLES COLLECTED	
. #3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		4250
CHLOROPHYLL-A (µg/L)		3.30
DOM. ZOOPLANKTON (% TOTAL) #1	NO ZOOPLANKTON	KERATELLA 22%
#2	SAMPLES COLLECTED	POLYARTHRA 22%
#3		NAUPLIUS LARVAE 17%
ROTIFERS/LITER		680
MICROCRUSTACEA/LITER		288
ZOOPLANKTON ABUNDANCE (#/L)		1046
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		2.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	9.5	8.7
BACTERIA (fecal col., #/100 ml) #1		10
#2		< 10
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL: Lake: MILLER POND Town: GRANTHAM					
	27 Febru	lary 1992	26 August 1991		
DEPTH (m)	1.5		1.5		
pH (units)	6.0		6.7		
A.N.C. (Alkalinity)	4.2		2.8		
NITRATE NITROGEN	0.12		< 0.05		
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.003		0.013		
CONDUCTIVITY (µmhos/cm)	31.7		23.0		
APPARENT COLOR (cpu)	9		18		
MAGNESIUM			0.37		
CALCIUM			2.1		
SODIUM			< 1.0		
POTASSIUM			< 0.40		
CHLORIDE	< 3		< 2		
SULFATE	7		. 5		
TN : TP					
CALCITE SATURATION INDEX			3.8		

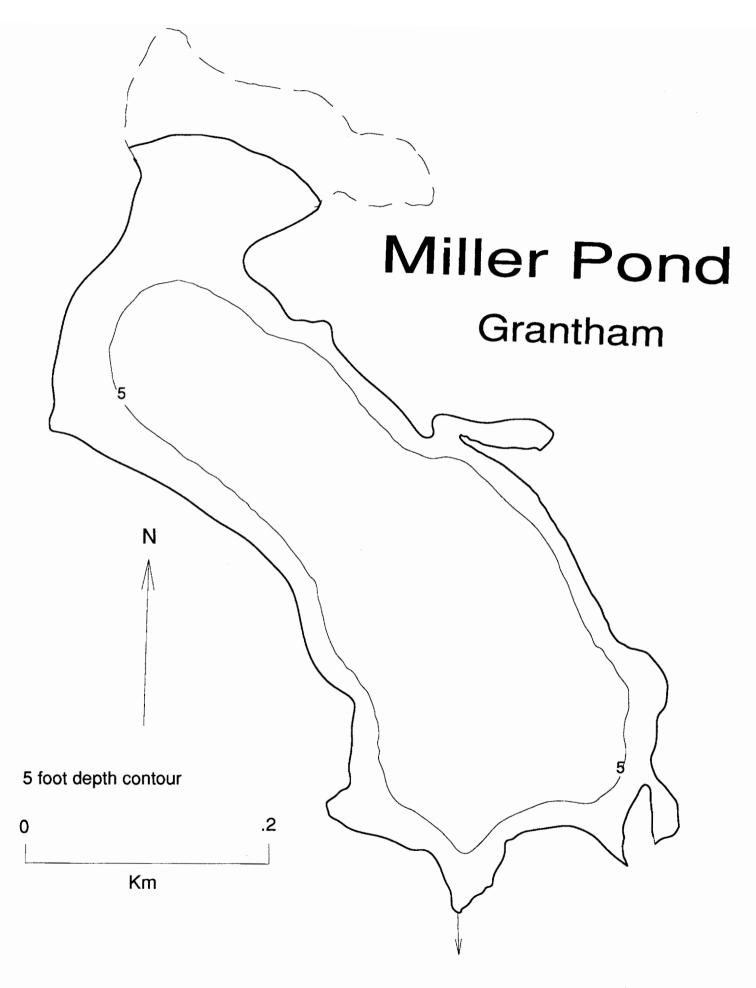
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1991

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	5	0	7	Meso.

COMMENTS:

- 1. No public access or boat launch site to the pond.
- 2. Six cottages were located along the pond -- on the western shoreline. The dirt road along the western shoreline stopped at the northern end of the pond.
- 3. All the cottages appeared to have outhouses for waste disposal.
- 4. Dam appeared to be partially man-made with loose stones and partially a beaver dam.
- 5. Greens (85%) were the dominant class of wholewater plankton with the filamentous green alga Mougeotia (80%) the dominant genus.



FIELD DATA SHEET

LAKE: MILLER POND

TOWN: GRANTHAM

DATE: 08/26/91

WEATHER: CLEAR, SUNNY & WARM

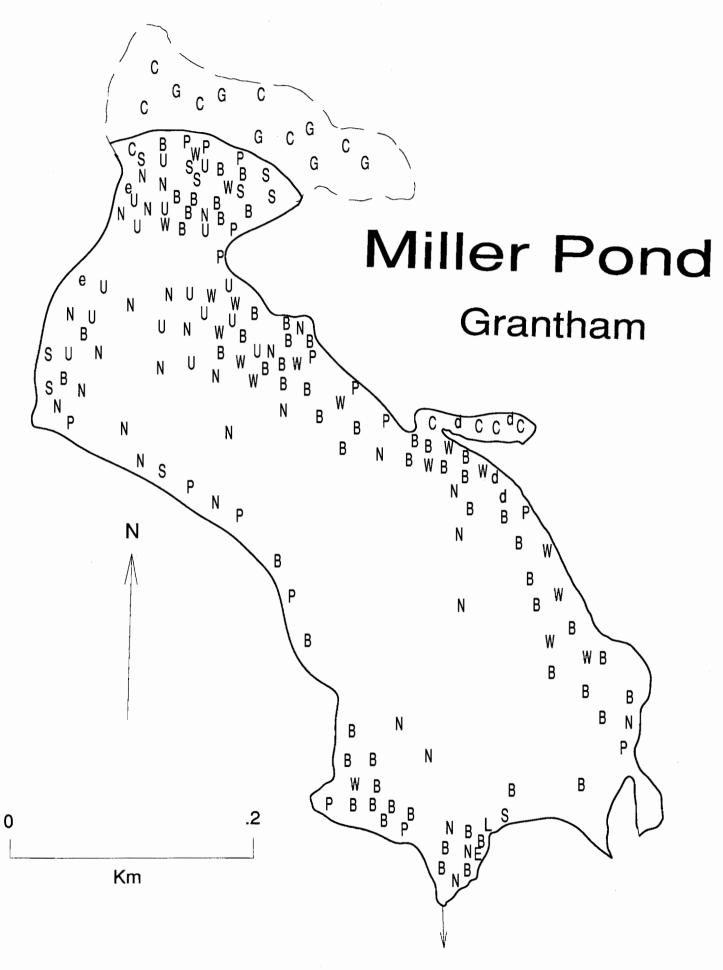
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	21.5	8.8	97 %
1.0	21.0	8.8	97 %
2.0	20.5	8.7	94 %

SECCHI DISK (m): 2.1 VOB COMMENTS:

BOTTOM DEPTH (m): 2.1

TIME: 1210

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: MILLER POND	TOWN: GRANTHAM	DATE: 08/26/91
Key	PLANT	ABUNDANCE	
кеу	GENERIC	GENERIC COMMON	
N	Nymphaea	White water lily	Abundant
В	Brasenia schreberi	Water shield	Abundant
E	Eriocaulon septangulare	Pipewort	Sparse
е	Eleocharis	Spike rush	Sparse
s	Sparganium	Bur reed	Scattered
U	Utricularia	Bladderwort	Common
P	Pontederia cordata	Pickerelweed	Scattered
W	Potamogeton	Pondweed	Common
L	Lobelia dortmanna	Water lobelia	Sparse
d	Dulichium arundinaceum	Three-way sedge	Scattered
С	Cyperaceae	non-flowering sedge	Scattered
G	Gramineae	Grass family	Scattered

GENERAL OBSERVATIONS:

1. A quiet, shallow, weedy pond. Water appeared slightly turbid.

OVERALL ABUNDANCE: Abundant

2. A wetland area was located at the northern end of the pond.